

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 470A

Mile Post (ON)11: 17.584 mi

Bridge Name: F-16-KP

Inspection Date: 1/30/2012

Sufficiency Rating: 80.7 Not Eligible

NBI Reporting ID:	F-16-KP	Hist Signif 37:	5	UW Inspection Date 93B:	
Rgn/Sectn 2E/2M:	68	Posting status 41:	A	SI Date 93C:	
Trans Region 2T:	02	Service on/un 42A/B:	1 5	Bridge Cost 94:	\$ 263,113
County Code 3:	035	Main Mat/Desgn 43A/B:	1 19	Roadway Cost 95:	\$ 26,311
DOUGLAS		Appr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$ 394,669
Place Code 4:	45255	Main Spans Unit 45:	1	Year of Cost Estimate 97:	2006
LITTLETON		Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Rte.(On/Under)5A:	1	Horiz Clr 47:	38.0 ft	Border Bridge Number 99:	
Signing Prefix 5B:	3	Max Span 48:	29.0 ft	Defense Highway 100:	0
Level of Service 5C:	1	Str Length 49:	29.0 ft	Parallel Structure 101:	N
Directional Suffix 5E:	0	Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft	Direction of Traffic 102:	2
Feature Intersected 6:		Width Curb to Curb 51:	0.0 ft	Temporary Structure 103:	
HIGHLINE CANAL		Width Out to Out 52:	252.0 ft	Highway System 104:	1
Facility Carried 7:		Deck Area:	7,308.7 sq. ft	Fed Lands Hiway 105:	0
SH 470 ML		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	0000
Alias Str No.8A:		Min Undrclr Ref 54A:	N	Deck Type 107:	N
		Min Undrclr 54B:	0.0 ft	Wearing Surface 108A:	N
Prll Str No. 8P		Min Lat Clmnce Ref R 55A:	N	Membrane 108B:	N
		Min Lat Undrclr R 55B:	0.0 ft	Deck Protection 108C:	N
Location 9:		Min Lat Undrclr L 56:	0.0 ft	Truck ADT 109:	5 %
.5 M E OF JCT US 85		Deck 58:	N	Trk Net 110:	1
Max Clr 10:	328.1 ft	Super 59:	N	Pier Protection 111:	#
BaseHiway Net12:	1	Sub 60:	N	NBIS Length 112:	Y
IrsinvRout 13A:	000000470A	Channel/Protection 61:	8	Scour Critical 113:	8
IrsusbRout No13B:	00	Culvert 62:	7	Scour Watch 113M:	
Latitude 16:	39d 33' 48"	Optng Rtg Method 63:	5 No rating	Future ADT 114:	112,048
Longitude 17:	105d 01' 19"	Operating Rating 64:	36.0	Year of Future ADT 115:	2028
Range18A:	68 W	Inv Rtg Method 65:	5	CDOT Str Type 120A:	CBC
Township18B:	68	Inventory Rating 66:	36.0	CDOT Constr Type 120B:	2.
Section18C:	5	Asph/Fill Thick 66T:	180 "in"	Inspection Indic 122A:	
Detour Length 19:	0.6 mi	Str. Evaluation 67:	7	Inspection Trip 122AA:	
Toll Facility 20:	3	Deck Geometry 68:	N	Inspection Schedule ID:	LP3 MAY E14
Custodian 21:	1	Undrclr Vert/Hor 69:	N	Maintenance Patrol 123:	30
Owner 22:	1	Posting 70:	5	Expansion Dev/Type124:	O
Functional Class 26:	12	Waterway Adequacy 71:	8	Brdg Rail Type/Mod 125A/B:	X 0
Year Built 27:	1984	Approach Alignment 72:	8	Posting Trucks 129A/B/C:	0 0 0
Lanes on 28A:	4	Type of Work 75A:	33	Str Rating Date 130:	1/1/1901
Lanes Under 28B:	0	Work Done By 75B:	1	Special Equip 133:	-1
ADT 29:	75,200	Length of Improvment 76:	29.2 ft	Vert Clr N/E 134A/B/C:	X 99.99 0
Year of ADT 30:	2008	Insp Team Indicator 90B:	GREEN TEAM	Vert Clr S/W 135A/B/C:	X 99.99 0
Design Load 31:	6	Inspector Name 90C:	ROSSARTB	Vertical Clr Date:	1/1/1901
Apr Rdwy Width 32:	76.0 ft	Frequency 91:	48 months	Weight Limit Color: 139:	0
Median 33:	2	FC Frequency 92A:		Str Billing Type:	U
Skew 34:	47.00 °	UW Frequency 92B:		Userkey 1 - System:	ONSYS
Structure Flared 35:	0	SI Frequency 92C:		Userkey 7-Update Indic:	
Sfty Rail 36a/b/c/d:	1 1 1 1	FC Inspection Date 93A:			
Rail ht36h:	00 "in"				

Inspector Name: ROSSARTB

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Element Inspection Report

Elem/Env	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
241/4	Concrete Culvert	(LF)	346	93 %	321	6 %	20	1 %	5	0 %	0	0 %	0
327/4	Culvert Wingwalls	(EA)	4	75 %	3	25 %	1	0 %	0	0 %	0	0 %	0
335/4	Culvert Headwalls	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
501/1	Channel Cond	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
504/1	BankCond	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
241/4	Concrete Culvert	Couple longit. cracks with efflorescence in top slab, also several longit. cracks with active leaking and rust stains. Large cracks, some with differential, across top slab (including at or near joints) open 1/16 inch - 1/8 inch without efflorescence. Corresponding cracks in walls taper down near base. Vertical crack at angle break = 1/4 inch on Wall #2, measured at midheight, same as in 1993, and 1/4 inch to 1/2 inch crack in Wall #1. No change in 2012 inspection Cracks may have occurred during construction by overloading top slab during backfilling.
327/4	Culvert Wingwalls	Joint at #1 Left open 1 inch and pushed .25 inch; #1 Right wingwall tipped back 1 inch & joint is open 1 inch; #2 Left tipped back 1.75 inches & open 1.5 inches; #2 Right tipped back 1 inch and open 1 inch. Filler material is slipping out. Typical hairline vertical cracks. Erosion behind #1 left; #1 right; and #2 left is less than 1 cubic yard.
335/4	Culvert Headwalls	Hairline to light vertical cracks in both.
501/1	Channel Cond	Highline Canal. Controlled flow with a sandy bed. Curve just upstream, but no problem.
504/1	BankCond	Steep. Lined with large trees, willows, and grass which helps stabilize the banks. See 2012 Photos.

Bridge Notes

Concrete Jersey Barrier on the South side is new, along with Guide Cable System along the median at the 2012 inspection.
Cell has about 6 inches of sediment.

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Inspection Notes

Temperature: 53 Degrees F.
Time: 10:30
Weather: Clear

Scope:

☒ NBI: ☒ Element: ☐ Underwater: ☐ Fracture Critical: ☐ Other: **Type:** Regular NBI

Team Leader Inspection Check-off:

☐ FCM's ☐ Vertical Clearance
☐ Posting Signs ☐ Stream Bed Profile
☐ Essential Repair Verification

Inspection Team:

Inspection Date: 01/30/2012

Inspector: ROSSARTB

Inspector (Team Leader)